DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

156
Revision 1
Jacobs
L-5 Series

January 2, 2002

TYPE CERTIFICATE DATA SHEET NO. 156

Engine models described herein conforming with this data sheet (which is part of Type Certificate No. 156) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder — Air Repair, Inc.
920 Airport Service Road
Cleveland, Mississippi 38732

Type Certificate Holder Record: Air Repair, Inc. assumed ownership of this type certificate from Jacobs Service Company, 4305 Saturn Way, Chandler, Arizona 85334 on January 2, 2002.

Model	L-5	L-5M	L-5MB
Type	7RA Direct drive	- - - -	- - - -
Rating:			
Maximum Continuous, hp, rpm, at S.L. pressure altitude	285-2000-S.L.	- - - -	- - - -
Take-off (5 minutes), hp, rpm at full throttle	285-2000	- - - -	- - - -
Fuel (minimum octane aviation gasoline)	73	- - - -	- - - -
Bore and stroke, in.	5.5 x 5.0	- - - -	- - - -
Displacement, cu. in.	831	- - - -	- - - -
Compression ratio	6: 1	- - - -	- - - -
Weight (dry), lbs.	515	509	530
Propeller shaft, SAE No.	20	- - - -	- - - -
Carburetion	Stromberg NA-R7A	- - - -	- - - -
	carburetor with 2-1/8 in.		
	venturi		
Ignition, dual	Bosch AFV or Scintilla	Scintilla MN7-DF or	Combination Scintilla
	WL7A battery units	VMN7-DF magnetos	MN7-DF5 or VMN7-DF5
			magnetos and Scintilla
			WL7A or Bosch AFV
			battery unit
Ignition timing, degree BTC	30	- - - -	- - - -
Spark plugs	BG-4B2(S), 417(S),	- - - -	- - - -
	Bendix 9BS2, 437J,		
	Champion M3-1S, RC-26S		
	C-27, C27S		
NOTES	1,2,3,4,5	1,3,4,5	1,3,4,5

Certification basis — Type Certificate No. 156

Production basis — None. The manufacturer no longer holds a production certificate for engines under this type certificate; therefore, each engine produced subsequent to February 20, 1957, is subject to a detailed inspection for workmanship and conformity with the approved data by an FAA representative. In addition, the engine must have a satisfactory run-in including at least five hours at rated power and speed. Upon satisfactory completion of the above, the representative will tag the engine with Tag Form ACA-186.

NOTE 1. Maximum permissible cylinder head, barrel, and oil inlet temperature, 550° F., 325°F., and 200°F., respectively.

NOTE 2 Includes L-5 engines, Nos. 1135, 1159, 1160, 1178, 1181, 1205, 1208, 1216, 1217, 1220, 1221, and 1271 with the following rating:

Maximum continuous hp, rpm, at sea level pressure altitude	300-2125-S.L.
Take-off, hp, rpm, at full throttle	300-2125

NOTE 3. Engine dry weights listed above include starter drive, generator drive, one pump drive and the following:

Radio shielded ignition (standard equipment on later engines)	10 lbs.
Accessory drive unit – 1 pump drive (L-5MB only)	3 lbs.
Generator and control – 15 amp. (L-5 and L-5MB only	17 lbs.

NOTE 4. The following accessories are eligible for use on the specified engine model at the indicated additional or substitute weights:

		Engine Models		
	Weight (lbs)	L-5	L-5M	L-5MB
*Governor – Hamilton Standard hydraulic propeller governor Model 1A4	5	Yes	- - - -	- - - -
Oil transfer ring assembly – for propeller pitch control	7	Yes	- - - -	- - - -
Provision for automatic valve gear lubrication	7	Yes	- - - -	- - - -
Hydraulic pump – Pesco Model 320-F	2	Yes	- - - -	- - - -
Fuel pump – Romec Model C-28, C-16, F4RB, or Pesco R-400-BLH	2	Yes	- - - -	- - - -
Vacuum pump – Romec Type B-2A, Eclipse Types B-1 or B-2	4	Yes	- - - -	- - - -
Generator:				
Eclipse Type D, 25 amp., and control	26	Yes	- - - -	- - - -
Eclipse Type LV-180, 15 amp., and control	17	Yes	- - - -	- - - -
Eclipse Type G, 15 amp., and control	19	Yes	- - - -	- - - -
Bosch LE/70-12 and control	12	Yes	- - - -	- - - -
Starter:				
Eclipse Type E-80	19	Yes	- - - -	- - - -
Eclipse E-141	25	Yes	- - - -	- - - -
Accessory drive unit including:				
3 pump drives	6	Yes	No	Yes
2 pump drives	5	Yes	No	Yes
1 pump drive	3	Yes	No	Std.
Propeller hub (fixed pitch)	15	Yes	- - - -	- - - -

*All models are eligible for optional use of 2-position hydraulically controllable propeller when the control valve is used in lieu of the constant speed governor.

NOTE 5. The following accessory drive provisions are available:

Drive	Direction of Rotation	Drive ratio	Maximum Torque Continuous	Inch-Pounds Static	Maximum Overhand Moment Inch-Pounds
Starter	CCL	1.5:1	- - - -	5500	100
Generator	CCL	1.4:1	50	300	110
Fuel pump (rear crankshaft)	CL	1:1	20	150	- - - -
Tachometer	CCL	.5:1	- - - -	- - - -	- - - -
*Vacuum pump	CCL	1: 1 or .875:1	30	200	- - - -
*Propeller governor	CCL	1:1			
*Hydraulic pump	CCL	1:1 or .875:1	30	200	- - - -
*Fuel pump	CCL	1:1	30	200	- - - -

All directions of rotation are given facing engine drive flange.
*Accessories marked with an asterisk are mounted on accessory drive unit.
The total continuous torque taken off all the drives on the accessory drive unit should not exceed 70-inch pounds.
Overhang moment for drive pads are listed is not critical provided accessory weights listed in NOTE 4 are not exceeded.

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